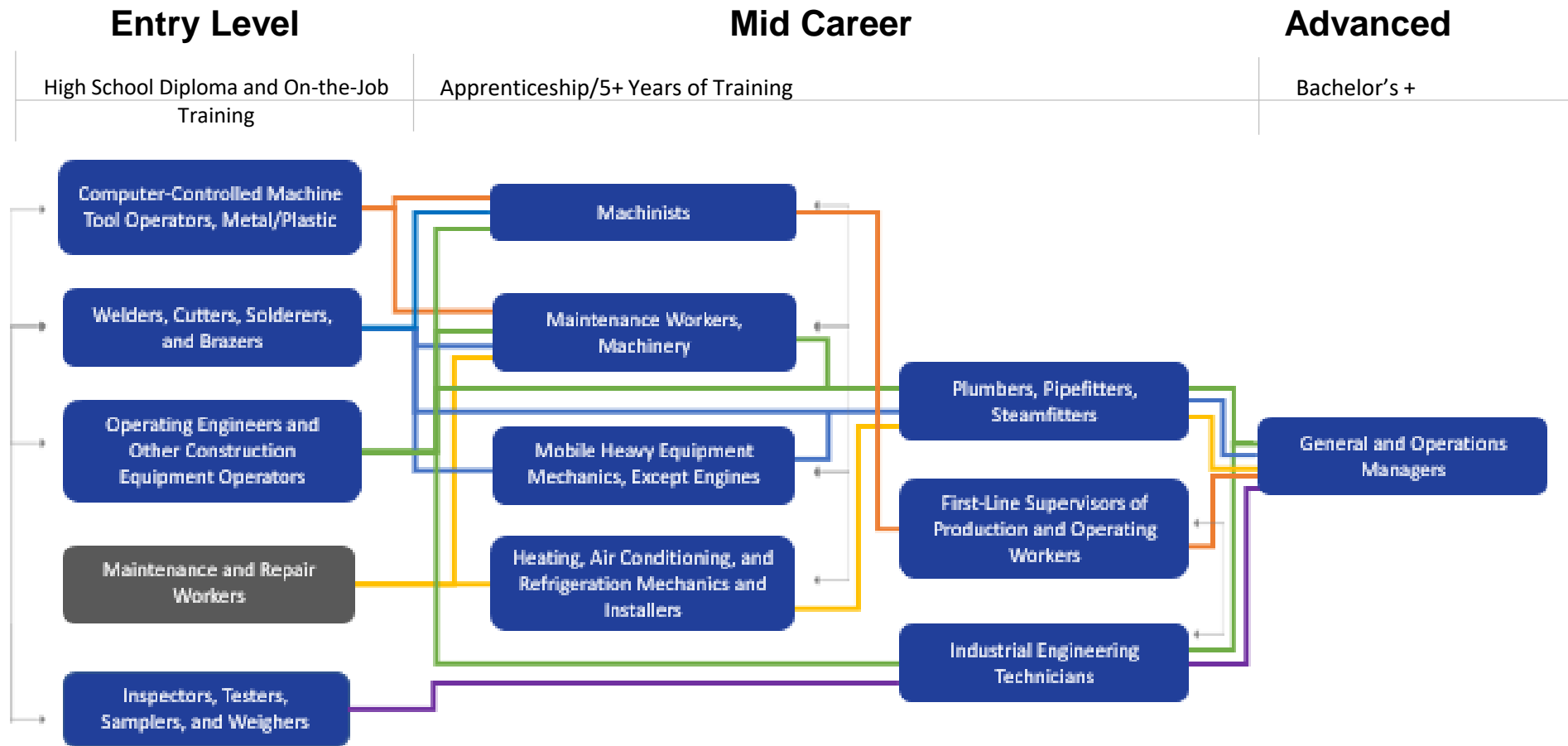





Construction Ecosystem Career Lattice

Heavy Equipment Operation & Maintenance



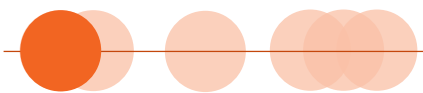
-  = Transferrable Occupation
-  = An affiliated occupation not within the 100 Critical Occupation List
-  = An Occupation within the 100 Critical Occupation List

The lines within this career lattice provide potential pathways that workers can follow within this industry ecosystem. The colors are simply to differentiate one pathway option from the other.

Computer-Controlled Machine Tool Operators, Metal and Plastic Occupational Profile

MEDIAN SALARY & WAGES

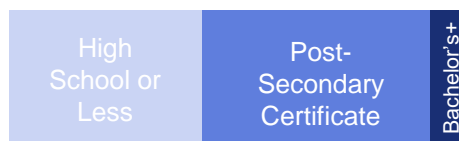
\$17.69/hour



COMMON JOB TITLES

CNC Operator
Machine Operator (Production)
CNC Machinist
Laser Operator

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Operation Monitoring
Monitoring
Quality Control Analysis
Critical Thinking
Operation and Control
Reading Comprehension
Complex Problem Solving
Active Listening
Troubleshooting
Judgment and Decision Making

TOTAL JOBS FOR 2028

3,083



COMMON KNOWLEDGE COMPETENCIES

Production and Processing
Mechanical
Mathematics
Design

TOP CERTIFICATIONS REQUESTED

Certified Purchasing Professional

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



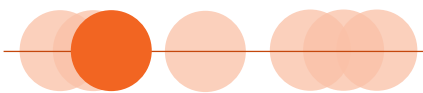
OKLAHOMA
WORKS

Indicates an especially close similarity

Welders, Cutters, Solderers, and Brazers Occupational Profile

MEDIAN SALARY & WAGES

\$19.07/hour



COMMON JOB TITLES

CNC Welder (Production)

Structural Fitter

Fabricator

Welding Supervisor

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

TOP SKILLS REQUESTED

Operation and Control

Critical Thinking

Reading Comprehension

Monitoring

Quality Control Analysis

Active Listening

Speaking

Operation Monitoring

Judgment and Decision Making

Monitoring

TOTAL JOBS FOR 2028

9,583



COMMON KNOWLEDGE COMPETENCIES

Production and Processing

Mechanical

Design

Administration and Management

TOP CERTIFICATIONS REQUESTED

Certified Welder

General Certificate Of Secondary Education

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



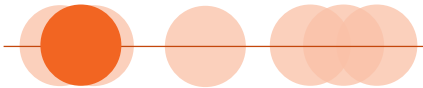
OKLAHOMA
WORKS

 Indicates an especially close similarity

Operating Engineers and Other Construction Equipment Operators Occupational Profile

MEDIAN SALARY & WAGES

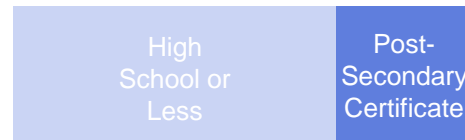
\$17.95/hour



COMMON JOB TITLES

Crane Operator
Equipment Operator (Production)
Operating Engineer
Equipment Operator (Construction and Extraction)

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Operation and Control
Operation Monitoring
Monitoring
Coordination
Equipment Maintenance
Troubleshooting
Critical Thinking
Active Learning
Repairing
Quality Control Analysis

TOTAL JOBS FOR 2028

7,102



COMMON KNOWLEDGE COMPETENCIES

Building and Construction
Mechanical
Administration and Management
Public Safety and Security

TOP CERTIFICATIONS REQUESTED

SIMILAR INDUSTRIES



Aerospace & Defense



Agriculture & Biosciences



Energy



Information & Financial Systems



Transportation & Distribution



Construction



Health Care



Education

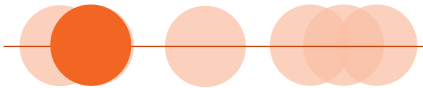


Creative Industries

Inspectors, Testers, Sorters, Samplers, and Weighers Occupational Profile

MEDIAN SALARY & WAGES

\$18.07/hour



COMMON JOB TITLES

Software Tester
Product Analyst
Quality Inspector
Quality Control Inspector

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Quality Control Analysis
Active Listening
Reading Comprehension
Speaking
Critical Thinking
Monitoring
Coordination
Operation Monitoring
Judgment and Decision Making
Writing

TOTAL JOBS FOR 2028

5,261



COMMON KNOWLEDGE COMPETENCIES

Production and Processing
Mathematics
English Language
Computers and Electronics

TOP CERTIFICATIONS REQUESTED

Certified Welding Inspector
ASNT Non-Destructive Tester
Commercial Driver's License (CDL)
Certified Quality Technician

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



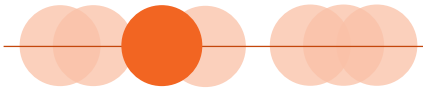
OKLAHOMA
WORKS

 Indicates an especially close similarity

Machinists Occupational Profile

MEDIAN SALARY & WAGES

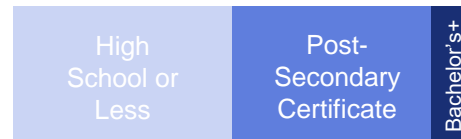
\$20.07/hour



COMMON JOB TITLES

CNC Machinist
Machinist
Tool Maker
CNC Programmer

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Operation Monitoring
Critical Thinking
Operation and Control
Reading Comprehension
Active Listening
Monitoring
Coordination
Speaking
Complex Problem Solving
Equipment Selection

TOTAL JOBS FOR 2028

5,653



COMMON KNOWLEDGE COMPETENCIES

Production and Processing
Mechanical
Mathematics
English Language

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)
Certified Information Security Manager
Certified Master Trainer
Certified Information Systems Security Professional

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



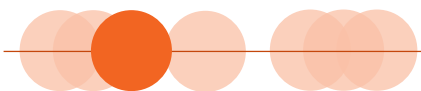
OKLAHOMA
WORKS

 Indicates an especially close similarity

Maintenance Workers, Machinery Occupational Profile

MEDIAN SALARY & WAGES

\$19.64/hour



COMMON JOB TITLES

Care Supervisor
Maintenance Mechanic
Maintenance Technician

REQUESTED EDUCATION

High School or Less
Post-Secondary Certificate
Bachelor's+

TOP SKILLS REQUESTED

Operation Monitoring
Repairing
Equipment Maintenance
Troubleshooting
Reading Comprehension
Operation and Control
Quality Control Analysis
Critical Thinking
Coordination
Active Listening

TOTAL JOBS FOR 2028

2,956



COMMON KNOWLEDGE COMPETENCIES

Mechanical
Design
English Language
Mathematics

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

SIMILAR INDUSTRIES



Aerospace & Defense



Agriculture & Biosciences



Energy



Information & Financial Systems



Transportation & Distribution



Construction



Health Care



Education



Creative Industries



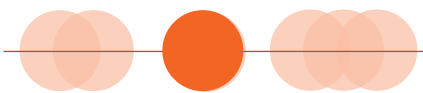
OKLAHOMA
WORKS

 Indicates an especially close similarity

Mobile Heavy Equipment Mechanics, Except Engines Occupational Profile

MEDIAN SALARY & WAGES

\$20.90/hour



COMMON JOB TITLES

Maintenance Mechanic

Equipment Repairer

Equipment Operator

Equipment Technician

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Troubleshooting

Repairing

Equipment Maintenance

Operation Monitoring

Operation and Control

Equipment Selection

Quality Control Analysis

Critical Thinking

Reading Comprehension

Complex Problem Solving

TOTAL JOBS FOR 2028

2,109



COMMON KNOWLEDGE COMPETENCIES

Mechanical

Customer and Personal Service

Mathematics

Computers and Electronics

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

Certified Welder

Certified First Responder

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



OKLAHOMA
WORKS

Indicates an especially close similarity

Heating, Air Conditioning, and Refrigeration Mechanics and Installers Occupational Profile

MEDIAN SALARY & WAGES

\$21.11/hour



COMMON JOB TITLES

HVAC Refrigeration Technician

HVAC Service Technician

Refrigeration Repair Technician

Heating, Ventilation, and Air Conditioning (HVAC) Mechanic

REQUESTED EDUCATION

High School or Less

Post-Secondary Certificate

Bachelor's+

TOP SKILLS REQUESTED

Operation Monitoring

Repairing

Equipment Maintenance

Troubleshooting

Installation

Equipment Selection

Quality Control Analysis

Operation Monitoring

Operation and Control

Reading Comprehension

TOTAL JOBS FOR 2028

3,964



COMMON KNOWLEDGE COMPETENCIES

Mechanical

Customer and Personal Service

Building and Construction

English Language

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

Professional Engineer

SIMILAR INDUSTRIES



Aerospace & Defense



Agriculture & Biosciences



Energy



Information & Financial Systems



Transportation & Distribution



Construction



Health Care



Education



Creative Industries



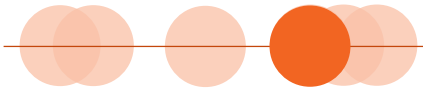
OKLAHOMA
WORKS

 Indicates an especially close similarity

Industrial Engineering Technicians Occupational Profile

MEDIAN SALARY & WAGES

\$29.04/hour



COMMON JOB TITLES

Quality Assurance Engineer
Quality Technician
Engineering Technician
Process Technician

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Reading Comprehension
Active Listening
Monitoring
Critical Thinking
Complex Problem Solving
Speaking
Systems Analysis
Systems Evaluation
Time Management
Writing

TOTAL JOBS FOR 2028

724



COMMON KNOWLEDGE COMPETENCIES

Engineering and Technology
Production and Processing
Mathematics
Mechanical

TOP CERTIFICATIONS REQUESTED

ASNT Non-Destructive Tester
Certified Welding Inspector
Transportation Worker Identification
Credential (TWIC) Card

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



OKLAHOMA
WORKS

 Indicates an especially close similarity

Plumbers, Pipefitters, and Steamfitters Occupational Profile

MEDIAN SALARY & WAGES

\$22.23/hour



COMMON JOB TITLES

Plumber
Pipe Fitter
Maintenance Mechanic
Maintenance Mechanic

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

TOP SKILLS REQUESTED

Critical Thinking
Judgment and Decision Making
Active Listening
Reading Comprehension
Active Listening
Critical Thinking
Speaking
Time Management
Operation Monitoring
Complex Problem Solving

TOTAL JOBS FOR 2028

7,299



COMMON KNOWLEDGE COMPETENCIES

Building and Construction
Mechanical
Design
Mathematics

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)
Certified Safety Professional

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



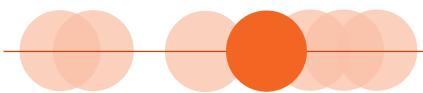
OKLAHOMA
WORKS

Indicates an especially close similarity

First-Line Supervisors of Production and Operating Workers Occupational Profile

MEDIAN SALARY & WAGES

\$25.56/hour



COMMON JOB TITLES

Production Supervisor

Operations Supervisor

Production Manager

Production Leader

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Active Listening

Speaking

Reading Comprehension

Critical Thinking

Coordination

Time Management

Management of Personnel Resources

Judgment and Decision Making

Social Perceptiveness

Monitoring

TOTAL JOBS FOR 2028

8,382



COMMON KNOWLEDGE COMPETENCIES

Production and Processing

Mechanical

Administration and Management

Personnel and Human Resources

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

Certified Quality Manager

Certified First Responder

(American Society For Quality) ASQ
Certified

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



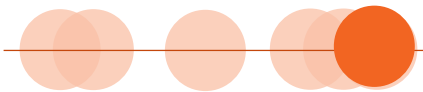
OKLAHOMA
WORKS

 Indicates an especially close similarity

General and Operations Managers Occupational Profile

MEDIAN SALARY & WAGES

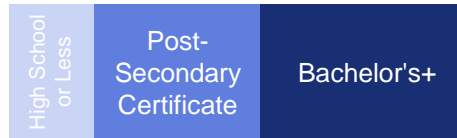
\$37.47/hour



COMMON JOB TITLES

General Manager
Operations Manager
Store Manager (Management)
Sales Manager (Sales and Related)

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Active Listening
Speaking
Monitoring
Social Perceptiveness
Coordination
Reading Comprehension
Critical Thinking
Time Management
Negotiation
Active Learning

TOTAL JOBS FOR 2028

29,825



COMMON KNOWLEDGE COMPETENCIES

Administration and Management
Customer and Personal Service
Personnel and Human Resources
English Language

TOP CERTIFICATIONS REQUESTED

Master Of Business Administration
Series 63
Series 6
Certified Retirement Administrator

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries

Oklahoma's Ecosystems

WHAT IS AN ECONOMIC ECOSYSTEM?

Oklahoma has identified nine driver and complementary economic systems representing the most prominent industries in terms of wealth generation and growth potential. Driver ecosystems drive wealth generation in Oklahoma, while the complementary ecosystems help to expand wealth in the economy and provide the infrastructure and services to support the driver systems in the state.

- Driver ecosystems: Aerospace and Defense, Agriculture and Biosciences, Energy, Information and Financial Systems, and Transportation and Distribution.
- Complementary Ecosystems: Construction, Health care, Education, and Creative industries.

WHAT ARE THE 100 CRITICAL OCCUPATIONS?

These occupations represent the most pressing needs in each of Oklahoma's Driver and Complementary Economic Systems necessary for the state's continued growth and economic prosperity. A workforce pipeline for each of the top 100 critical occupations is required for Oklahoma's businesses to grow and for Oklahoma citizens to earn a prosperous living. Factors included in the selection process demonstrate the values of job growth, wealth generation, and education, as outlined below:

- Job growth: all occupations have positive forecasted employment growth over the next ten years
- Wealth Generation: all occupations offer median wages greater than or equal to \$12.00 per hour
- Education: occupations requiring "no formal education" are eliminated, except those that offer greater than or equal to \$20.00 per hour.

WHAT ARE TRANSFERABLE OCCUPATIONS?

There are occupations that can provide valuable on-the-job training for individuals interested in the 100 Critical Occupations. These are generally entry-level or mid-career level occupations that can help individuals develop the knowledge, skills, and abilities needed to move forward on their career paths.

WHAT ARE CAREER PATHWAYS?

Career pathways are designed to help people who are looking to make the next step in their careers both envision and plan for their long-term employment goals. The recommended pathways in this report are based on forecasted employment prospects as well as knowledge, skills and ability profile data by specific occupation. These data were gathered from numerous employer-demand driven data sources. Based on these data, Oklahoma Works determined similarities and difference between each occupation's required skill sets and developed possible career pathways options.

Glossary

ABILITIES – the proficiency, skills, or talent within a particular area.

CAREER PATHWAY – a career pathway means a combination of relevant, rigorous and high-quality education, training, and supportive services that aligns both vertically and horizontally across Secondary Education, Adult Basic Education, Workforce Training and Development, Career and Technical Education, and Postsecondary Education systems, pathways, and programs.

CERTIFICATION – third party accrediting or authorizing agency or person who assess, verifies, and provides an official documentation that attests a level of achievement.

COMPETENCIES – an individual’s ability to do a job properly through a set of behaviors.

INDUSTRY-ALIGNED CREDENTIAL – credentials whose standards are aligned to industry-recognized standards.

INDUSTRY-ENDORSED CREDENTIAL – credentials whose standards are aligned to and endorsed by industry.

INDUSTRY-RECOGNIZED CREDENTIAL – an industry-recognized credential is one that either is developed and offered by, or endorsed by a nationally-recognized industry association or organization representing a sizeable portion of the industry sector, or a credential that is sought or accepted by companies within the industry sector for purposes of hiring or recruitment which may include credentials from vendors of certain products.¹

KNOWLEDGE – the skills and information acquired through education or experience.

MEDIAN HOURLY EARNINGS – hourly earnings for the occupation reported at the 50th percentile.

REQUESTED EDUCATION – the highest level of education for workers within the given occupational category. Please note these are not the level of education of new incoming workers but of workers currently employed within these positions.

SKILLS – the ability or expertise to do something well.

TOTAL JOBS – estimated number of jobs in the given year, taken as average over a period of 12-months. This value includes both full- and part-time jobs.

¹ For this analysis, TPMA utilized certifications data from a third-party data aggregator, Economic Modeling Specialists, Inc., which daily accesses over 300 million unique job postings records. Though these certifications have not been vetted by Oklahoma Works, they are observed as commonly requested by industry employers.